

# Abstract Form

Abstract is to be typed in a 10 point font/typeface (Times Roman preferred) and must fit in the space below; additional pages may not be submitted.

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### TITLE: EVALUATING PROPOSALS FOR DONOR REGISTRIES

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### DESCRIPTION OF ACTIVITY:

Many states have some form of registration available through the department of motor vehicles allowing citizens to indicate their willingness to donate organs or tissues. Some states and OPOs have pursued strategies to expand donor registries, reasoning that a reliable mechanism for retrieving the donation wishes of recently-deceased persons would allow more families to consent to donate. Some individuals and organizations have proposed consideration of a national donor registry.

We present a model for evaluating the cost-efficiency of donor registries. Ultimately we are interested in the potential for registries to have a positive impact on donation at reasonable cost.

There are several inputs to the model, including: Size of population eligible to participate in registries (often limited to persons old enough to hold a driver's license); number of donor-eligible deaths likely to occur annually within service population; current level of public intention to donate; current level of donation consent; time frame over which evaluation will take place, and the cost of obtaining, maintaining and retrieving names in the registry.

The following simplified analysis estimates the number of registrants needed to produce an increase of 1000 donors over ten years (i.e. 100 incremental donors per year, an increase of slightly less than 2% over current national donation levels). The model assumes that: 1) all citizens who profess to support donation are equally willing to register; 2) hospitals identify 100% of eligible donor cases; 3) all families will donate if they know it is their relative's wish, and 4) there is no age criterion to register (i.e. even children can register).

### DESCRIPTION OF EVALUATION (if completed, provide results):

To attain 1000 additional incremental donors (that is, donors that would not occur otherwise) over ten years, an estimated 10 million individuals would have to register. The analysis follows.

- The current US population is approximately 260 mm of whom about 13,700 die each year under conditions allowing organ donation. Of those families asked, approximately 50% consent, although 69% of the public describes themselves as inclined to donate.
- The chances of a randomly selected individual dying under conditions suitable for organ donation within the next ten years is 1:1898. Calculation:  $1/[(13,700 \times 10)/260mm]$ . That is, there would have to be nearly 2000 registrants in order to expect one medically suitable donor case to show up in the registry over a ten-year horizon.
- Currently the chances are about 50% that a family will donate with or without a registry. Based on public attitudes data, an additional 19% might be willing if the person's wishes were known. Therefore the chances of influencing a donor at the margin are about 19%, changing the odds to 1:9988 that membership in the registry will lead to one donation over ten years that would not have happened absent the registry. Calculation:  $(1898/0.19)$ .
- Therefore, to realize 1000 additional donors over ten years would require a registry size of nearly 10 million names. Calculation:  $(9984 \times 1000) = 9,988,000$ .

Once an estimate is generated for the target registry size, cost data are needed to assess the cost per additional donor. Costs should include the direct costs of enrolling an individual, maintaining, and accessing the information over time, as well as a prorated share of the costs of public education and promotional activities related to the registry. As yet few data are available, but a sensitivity analysis can easily be performed using a range of estimates to assess the costs and probable returns of donor registries. For example, a total cost of \$1 per registry participant (probably on the low side) would translate into approximately \$10,000 per incremental donor. To determine how much to invest in registry efforts, the field needs to consider the cost per incremental donor in light of alternative options to invest a finite pool of resources.

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